

### REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

Claims 24 and 30 have been canceled, thereby obviating the section 112, first paragraph rejections applied thereto. Claims 28, 29, 31, and 33, which previously depended from intermediate claim 24, have been amended to depend from claim 23, from which claim 24 depended. The amendments of claims 28, 29, 31, and 33 were not presented earlier due to the unforeseeability of the remarks presented in the Final Rejection.

Claims 20-23, 25-29, 31, 34, and 37-40 stand rejected, under 35 USC §103(a), as being unpatentable over Kotzin et al. (US 6,173,005) in view of Ooba (US 6,717,929). Claims 35 and 36 stand rejected, under 35 USC §103(a), as being unpatentable over Kotzin in view of Ooba and Kanemoto et al. (US 2002/0160721). Claims 32 and 33 stand rejected, under 35 USC §103(a), as being unpatentable over Kotzin in view of Ooba and Onggosanusi et al. (US 2003/0016640). The Applicant respectfully traverses these rejections based on the points set forth below.

Claim 20 defines a CDMA transmitting apparatus that transmits first and second parallel data from first and second antennas using a multiple input multiple output scheme. The claimed subject matter supports improving spectrum efficiency and error rate characteristics of communicated information (see specification page 3, lines 13-18). (References herein to the specification and drawings are for illustrative purposes only and are not intended to limit the scope of the invention to the referenced embodiments.)

The Final Rejection acknowledges that Kotzin does not disclose the Applicant's claimed subject matter of transmitting parallel data from first and second antennas using a multiple input

multiple output scheme (see Final Rejection page 5, lines 1-5). To overcome this deficiency, the Final Rejection proposes that Ooba discloses this subject matter (see page 5, lines 7-9).

However, Ooba discloses a technique related to adaptive array antennas (see Ooba col. 7, lines 22-27). Ooba does not disclose multiple input multiple output (MIMO) communication. MIMO communication has a specific meaning to those of ordinary skill in the art. Ooba's disclosure does not contain the phrase "multiple input multiple output, the abbreviation "MIMO," or a disclosure related to MIMO.

Accordingly, the Applicant submits that the teachings of Kotzin and Ooba, considered individually or in combination, do not render obvious the subject matter defined by claim 20. Independent claims 39 and 40 similarly recite the above-mentioned subject matter distinguishing apparatus claim 20 from Kotzin and Ooba, but claim 39 does so with respect to a method. Independent claim 35 defines a receiving apparatus corresponding to the MIMO transmitting apparatus defined by claim 20, and Kanemoto is not cited in the Final Rejection for supplementing the teachings of Kotzin and Ooba with respect to MIMO communication. Therefore, the rejections applied to claims 32 and 33 are obviated and allowance of claims 20, 35, 39, and 40 and all claims dependent therefrom is warranted.

Moreover, claim 35 defines a CDMA receiving apparatus that separates varying data from signals received through first and second antennas using a difference in characteristics of propagation channels. The Final Rejection acknowledges that Kotzin does not disclose this subject matter (see Final Rejection page 12, lines 5-8). To overcome this deficiency, the Final Rejection proposes that Kanemoto discloses "separator and observing characteristics ... such as FER, FEC, BER" (see page 12, lines 9-11).

However, a frame error rate (FER) and bit error rate (BER) identify the information loss rate for a communication link and forward error correction (FEC) is an information coding/decoding technique that supports correcting errantly received information. Contrary to the position taken in the Final Rejection, FER, FEC, and BER do not separate data received from multiple antennas and do not do such using a difference in characteristics of propagation channels. Ooba is not cited in the Final Rejection for supplementing the teachings of Kotzin and Kanemoto in this regard.

Accordingly, allowance of claim 35 and dependent claim 36 is warranted for this independent reason.

In view of the above, it is submitted that this application is in condition for allowance, and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

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